

II. PROJECT INFORMATION

A. OVERVIEW OF THE PROPOSED PROJECT

The proposed project is the construction and operation of a State permitted hospital heliport for emergency air ambulance flights. This hospital heliport, also referred to in this SEIR as a helipad,¹ is proposed to be located adjacent to the main Kaiser Permanente hospital under construction on a 53-acre site at 700 Lawrence Expressway near Homestead Road (refer to Figures 1, 2, and 3).

Purpose and Need

Like the existing Kaiser Hospital located on Kiely Boulevard in the City of Santa Clara, the Kaiser Permanente hospital under construction on Lawrence Expressway will treat a wide range of patients. In a small number of situations, helicopter evacuation of patients in critical condition² to other medical facilities will be recommended by physicians at the hospital. This involves an interfacility transfer between hospitals. For an interfacility transfer of patients, there must be a sending physician and receiving physician who mutually agree that it is safe to transport an individual patient and what level of life support is required during a transfer.³ Helicopter evacuations may be called for when patients are in critical condition, there is *specialized* treatment at another hospital that could save the patient's life, and prolonged transportation time could increase the risk of death or brain damage due to oxygen deprivation.

Currently, there is one specialized treatment available at a regional teaching hospital that could require helicopter evacuation from the new Kaiser Permanente hospital. ECMO (Extra Corporeal Membrane Oxygenation) treatment can result in improved survival rates for premature infants with severe heart and lung failure. ECMO is the use of a specialized heart-lung bypass machine on infants. In Santa Clara County, ECMO treatment and the specialized medical staff required to perform the treatment, are only available at Lucile Packard Children's Hospital at the Stanford University Medical Center near Palo Alto. Patients requiring ECMO are in critical condition and increased transportation time increases the risk of mortality and/or brain damage.⁴ In the last several years, three to four infants per year have been transported to Stanford University Medical Center by helicopter from the existing Kaiser Permanente hospital on Kiely Boulevard in Santa Clara.

B. PROJECT DESCRIPTION

The proposed project is the construction and operation of a State permitted hospital heliport for emergency air ambulance flights under a Use Permit issued by the City of Santa Clara. The hospital helipad is proposed to be located on a 17-foot high platform located adjacent to the main Kaiser Permanente hospital under construction on Lawrence Expressway near Homestead Road. The

¹ Heliports and helipads are areas used for the landing and takeoff of helicopters. A heliport is a generic term that applies to all helicopter landing areas. A heliport may include facilities for refueling, maintenance, and aircraft storage. The proposed facility will be used for helicopter landings and takeoffs only and, therefore, is generally referred to as a helipad. The same design standards for size, clearance, and construction apply to heliports and helipads.

² A critically ill patient is a person with a life-threatening condition.

³ For critical interfacility transfers, a nurse is required to attend, although in some cases a physician, respiratory therapist and nurse are used. In the future, some critical care interfacility transfers can be done by paramedics, if both physicians agree (Source: John Blain, Compliance Coordinator, Santa Clara County Emergency Medical Services (EMS) Agency, personal communications, August 25, 2005).

⁴ Source: Mark Lillo, M.D., Assistant Physician-in-Chief, Kaiser Santa Clara Hospital, written communication, June 30, 2005.

helipad platform would be on the south side of the hospital building, approximately 285 feet from the closest residential property (refer to Figures 3, 4, 5, 6 and 7).

The City cannot specifically constrain the number or timing of emergency helicopter flights, but it can constrain the conditions under which they occur.⁵ Under the Use Permit, operation of the proposed helipad would be limited to:

- Emergency evacuation of critically ill patients from the Kaiser Permanente Santa Clara hospital where time is of the essence. Evacuations would be to regional medical facilities, such as those at Stanford University, that are teaching hospitals or otherwise specialize in medical care for life-threatening conditions that are not common.

The following uses would not be allowed under the proposed project:

- Transportation of patients *to* the Kaiser Permanente Santa Clara Medical Center facility; and
- Routine transportation of staff or individuals to or from the facility.

The helipad would be used for the emergency evacuation of critically ill patients to other medical facilities to receive specialized, life-saving treatment. At this time, the primary anticipated use of the helipad would be for the evacuation of prematurely born infants with life-threatening conditions to Lucille Packard Children's Hospital at the Stanford University Medical Center near Palo Alto to receive ECMO treatment.

Currently, emergency helicopter evacuations of patients from the existing Kaiser Permanente hospital facility on Kiely Boulevard occur approximately nine to 13 times per year.⁶ Patients are currently evacuated by helicopter to Stanford University Medical Center for treatment in order to perform two procedures: 1) ECMO or use of a heart-lung bypass machine on infants who are suffering from severe heart and lung failure; and 2) aortic dissections when a patient's aorta fails.⁷ An average of three to four premature infants are evacuated by helicopter per year for ECMO treatment and an average of six adults are evacuated for aortic dissections per year. The new Kaiser Permanente hospital facility on Lawrence Expressway, when operational, will have the surgical facilities to complete aortic dissections. Evacuation of adult patients for this procedure will no longer be required; therefore, reducing evacuations by a minimum of six per year. Premature infants with the pulmonary conditions that require ECMO will continue to require emergency transport to Stanford University Medical Center for this treatment that involves special equipment and a medical team highly experienced with the procedure and operation of a heart-lung machine on infants.

The proposed helipad would be constructed in conformance with Federal Aviation Administration (FAA) and State of California requirements for heliports. The helipad would be elevated to provide for adequate helicopter clearance of nearby buildings and power lines during landings and takeoffs and would be equipped with a lighted wind cone and perimeter landing lights. On the adjacent four-story hospital building, a landing (3-Color) beacon would be installed on the roof parapet and red obstruction lights would be installed on the roof perimeter. Access to the elevated helipad from the

⁵ Under the State Aeronautics Act [Section 21662.4(a)], emergency aircraft flights for medical purposes are exempt from local ordinances that restrict the hours of departure or arrival based upon an aircraft's noise level or restrict the operation of certain types of aircraft. A city can limit the allowed uses at a helipad or heliport for which it issues a Use Permit, however.

⁶ Lee Ann Knight, Senior Project Manager, Kaiser Permanente, personal communications, June 2004 and July 2005, based upon information from hospital medical and security staff and the Santa Clara Police Department.

⁷ The aorta is the main artery in the heart.

hospital would be from the second floor level to provide for a direct and safe transfer of patients to an air ambulance on the helipad.

The helipad would be marked as a private (PVT) helipad, which means that permission from Kaiser Permanente would be required for any landings at the site.

Possible Future Evacuations for Other Life-Threatening Conditions

Although it is anticipated that emergency evacuations requiring use of the helipad will occur approximately three to four times per year, Kaiser Permanente Medical Staff has stated that it is possible that additional medical evacuation flights of critically ill patients could occur in the coming years, due to specialized treatments developed in the future and available at surrounding medical facilities that are teaching hospitals or otherwise specialize in medical care for life-threatening conditions that are not common. It is estimated that specialized, life-saving treatments for patients in critical condition that are developed in the future could result in approximately ten to eleven additional evacuations per year, although the actual number of additional evacuations, if any, will likely be smaller. Therefore, although three to four helicopter evacuations per year are anticipated at this time and in the foreseeable future, in order to account for the possibility of additional emergency evacuations, the Supplemental EIR will analyze the environmental impacts of this project assuming an average of fifteen (15) flights per year over a two-year period. A two-year period is used since the number of flights in any given period of time may not be evenly distributed. This estimate is a good faith effort at forecasting future use of the helipad, per CEQA Guidelines Section 15144. Projecting the number of flights beyond this would be speculative and is not required as a part of the environmental review process, per CEQA Guideline Section 15145.

Helicopter transport would only be used when the shortened transportation time by helicopter could improve patient outcomes. Patients with critical (life-threatening) heart or lung conditions that could not be treated at the Kaiser Santa Clara facility would be an example of the type of patients that could benefit from air ambulance transport. Compared to the total number of patients who will use the new Kaiser Santa Clara facility, the number of critical patients with pulmonary or respiratory conditions who would benefit from transport to another off-site facility is projected by Kaiser Permanente staff to be small (*i.e.*, 15 or fewer evacuations per year). Each interfacility transfer would be initiated and authorized by a sending and receiving physician. Evacuations would be to facilities with specialized equipment *and* medical teams with extensive experience using life-saving treatments that effect a relatively small population of patients.

The Kaiser Permanente Santa Clara Medical Center will not include a trauma center⁸ or other specialized emergency acute care facilities that would attract patients regionally and, therefore, there will be no air transportation of patients *to* the facility.

⁸ “Trauma” refers to bodily injury. In Santa Clara County, severe trauma patients are transported directly to one of the three designated trauma centers: Valley Medical Center or Regional Medical Center in the City of San Jose, or Stanford University Medical Center near Palo Alto. A hospital facility must apply to the County of Santa Clara Emergency Medical Services Agency to be considered for designation as a Trauma Center and it must also meet specific criteria. Designation of a facility as a Trauma Center is a discretionary action that requires its own environmental review.

Use Permit Conditions

In order to clarify and limit the conditions under which the helipad will operate, the proposed Use Permit for the helipad will include the following conditions:

1. The identified beneficial and allowed use of the proposed helipad is as an emergency heliport at a Basic, General Acute Care hospital. The helipad shall only be used for the emergency evacuation of critically ill patients where time is of the essence. The helipad shall not be used for General Aviation or commercial transport purposes.
2. Prior to operation of a helipad on the Kaiser Permanente Santa Clara Medical Center site, Kaiser Permanente will obtain a Heliport Permit from the California Department of Transportation, Division of Aeronautics. The helipad will be designed, constructed, and operated in conformance with Federal Aviation Regulations and the State of California Aeronautics Act.
3. Once the helipad facility is permitted and operational, Kaiser Permanente will ensure, in contracts with all contractors, that on-site construction activities (including use of cranes or ladders) will not penetrate either of the 8:1 approach surfaces for the helipad designated in the State of California Department of Transportation Heliport Site Approval Permit for the helipad facility.
4. Transportation of patients to the Kaiser Permanente Santa Clara Medical Center facility by helicopter is prohibited.
5. Routine transportation of staff or individuals to or from the Kaiser Permanente Santa Clara Medical Center facility by helicopter is prohibited. Staff accompanying critically ill patients as a part of an emergency evacuation is allowed.
6. A program of monitoring helicopter operations will be established and maintained by Kaiser Permanente. The applicant shall submit to the Director of Planning on July 1st of each year a copy of the helipad log, which includes dates and times of all arrivals and departures, helicopter type and flight path used, and reason for each helicopter flight.
7. Primary approach and departure flight paths will be posted at the helipad facility and/or receiving area and provided to all helicopter pilots. Deviations from the approved flight path/safety areas may be flown only due to wind conditions judged by pilots to be an overriding safety concern or safety direction from the FAA or air traffic controllers.
8. A Helipad Noise Disturbance Coordinator responsible for responding to any local complaints about emergency helicopter overflight noise will be designated by Kaiser Permanente. The disturbance coordinator would determine the cause of the noise complaint (e.g., date and time of reported operations and routes and elevations flown). The telephone number for the disturbance coordinator will be available at the hospital and included in notices sent to neighbors regarding the proposed project. Annual reports of noise complaints will be forwarded to the City of Santa Clara Director of Planning along with helipad logs.
9. The Helipad Noise Disturbance Coordinator, or other Kaiser Permanente staff, will (to the extent feasible) notify emergency communications dispatchers in the City of Santa

Clara Police Department of incoming emergency helicopter flights. The purpose of timely notification is to facilitate responses to inquiries by citizens and other agencies as to the nature and purpose of helicopter overflights in the area.

10. This Use Permit is void in the event the type of hospital operation is modified from a hospital with Basic services to a hospital that provides Level I or Level II Trauma Center services as defined by the County of Santa Clara Office of Emergency Services.

Under the Santa Clara City Code (Section 18.110.100) a Use Permit may be revoked if the conditions of the permit are violated, or if any law or ordinance is violated in connection with the Use Permit or if the Planning Commission finds, with the concurrence of the City Council, that the continuance of the use permit will endanger the public health, safety, or welfare. The Planning Commission shall hold a hearing on any proposed revocation and submit its recommendations to the City Council.

Figure 1: Regional Map

Figure 2: Vicinity Map

Figure 3: Aerial

Figure 4: Medical Center Site Plan

Figure 5: Helipad Site Plan

Figure 6: West Elevation of Helipad

Figure 7: Helipad South Elevation

D. PROJECT OBJECTIVES

Kaiser Foundation Health Plan, Inc. (which also operates under the name Kaiser Permanente) is the applicant for the proposed helipad project. Kaiser's objectives include:

1. Construction and operation of a helipad for emergency evacuations from the new Kaiser Permanente Santa Clara Medical Center hospital to allow for rapid patient access to off-site specialized, life-saving medical treatment facilities.
2. Installation of a helipad for emergency evacuations that:
 - a. allows for the use of helicopter air ambulances to transport critically ill patients between medical facilities when imperative/crucial for patient survival;
 - b. is a part of, or adjacent to, the new hospital to avoid the need for patient transfer to ground ambulance transportation prior to air evacuations;
 - c. takes into account the safety and ease of handling and transfer of patients to be evacuated;
 - d. incorporates safety design features to protect helicopter flight crews, hospital staff, and Medical Center users per FAA and State of California regulations;
 - e. avoids the need to have road closures or assistance from the Santa Clara Police Department to accommodate emergency evacuations from Kaiser Hospital; and
 - f. avoids potential public safety impacts at the new Kaiser facility associated with emergency helicopter landings outside of a permitted heliport.
3. Construction of a helipad that could allow for emergency evacuations when the new Kaiser Permanente Santa Clara Medical Center hospital opens neonatal facilities in mid-2007.

E. CONSISTENCY WITH PLANS AND POLICIES

This section complies with CEQA Guidelines Section 15125(d), which requires an EIR to discuss any inconsistencies between the proposed project and applicable general plans (such as the City of Santa Clara General Plan) and regional plans.

1. Regional Plans and Policies

Land Use Plan for Areas Surrounding Santa Clara County Airports Airport Land Use Commission, September 1992

The *Land Use Plan for Areas Surrounding Santa Clara County Airports*, adopted by the Santa Clara County Airport Land Use Commission (ALUC) in September 1992 and amended in November 2003, establishes a comprehensive land use plan that provides for the orderly growth of the area surrounding the airports in Santa Clara County. The ALUC has established provisions for the regulation of land use, building height, safety, and noise insulation within areas adjacent to each of the public airports in the county.

The Land Use Plan also includes criteria and guidelines for review of proposals for the construction of new airports and heliports.

Consistency: The project site is beyond ALUC referral boundaries for the closest public airport, Norman Y. Mineta San José International Airport.

The project proposes construction of a new helipad to provide for the air evacuation and transport of patients from a new hospital to off-site hospital facilities. The helipad and flight paths will be designed to meet established State of California and Federal Aviation Administration (FAA) heliport safety standards and use of the helipad by emergency air ambulance helicopters would not interfere with operations at public airports. The ALUC reviewed the proposed project on January 26, 2005 and found the project consistent with ALUC policies, as defined in its *Criteria and Guidelines for Review of Proposals for the Construction of New Airports and Heliports* (refer to Appendix C). This includes criteria that a heliport should not be recommended for approval within 4,000 feet of residential areas unless there is a clear and significant benefit. In this case, the provision of emergency medical services for critically ill patients would be a substantial benefit to the community. The project, therefore, is consistent with the ALUC Land Use Plan for Areas Surrounding Santa Clara County Airports.

1982 Bay Area Air Quality Plan and 2000 Clean Air Act ABAG/BAAQMD/MTC

The 1982 Bay Area Air Quality Plan and 2000 Clean Air Plan (2000 CAP) establish regional policies and guidelines to meet the requirements of the Clean Air Act, as amended through 1990. The Bay Area is a non-attainment area for ozone, since federal standards are exceeded for this pollutant. The Bay Area 2000 Clean Air Plan is the current regional strategy for improving air quality. The Plan proposes the adoption of transportation, mobile source and stationary source controls on a variety of pollutant sources to offset population growth and provide improvement in air quality. The consistency of the proposed project with this regional plan is primarily a question of the consistency with the population/employment assumptions utilized in developing the Plan. The 2000 CAP was based on the City's General Plan in effect at the time the CAP was approved and the Association of Bay Area Governments (ABAG) Projections '98.

Consistency: To the extent that the proposed project would not result in a change in the population and employment assumptions utilized in developing the Air Quality Plan, the proposed project is consistent with the 2000 Clean Air Plan.

As discussed in Appendix A of this Draft SEIR (refer to pages 24-25 in *Section V. C. Air Quality*), helicopter flights to and from the new Kaiser facility on Lawrence Expressway would represent a shift in helicopter evacuations from the exiting Kaiser Hospital on Kiely Boulevard to the project site and, therefore, the project would not be a source of new air pollutant emissions. Air ambulance helicopter flights would not be a substantial source of new air emissions in the San Francisco Bay Air Basin. The project, therefore, is consistent with the 2000 CAP.

San Francisco Bay Region Water Quality Control Plan

The Regional Water Quality Control Board has developed and adopted a Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region. The Plan is a master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the San Francisco Bay Region. The Regional Board first adopted a water quality control plan in 1975 and the last major revision was adopted in 1995.

The Plan provides a program of actions designed to preserve and enhance water quality and to protect beneficial uses. It meets the requirements of the U.S. Environmental Protection Agency and establishes conditions related to discharges that must be met at all times.

The implementation portion of the Basin Plan includes descriptions of specific actions to be taken by local public entities and industries to comply with the policies and objectives of the Plan. These include measures for urban runoff management and wetland protection.

Consistency: As discussed in Appendix A of this Draft SEIR, the project would conform to the requirements of the City of Santa Clara regarding erosion and sedimentation control during construction. The project will conform to a Storm Water Pollution Prevention Plan, as required under the State Water Resources Control Board General NPDES Permit program for construction activities. Through these measures, the project will comply with the intent of the Basin Plan.

Santa Clara Valley Urban Runoff Pollution Prevention Program

The Santa Clara Valley Urban Runoff Pollution Prevention Program was developed in accordance with the requirements of the 1986 San Francisco Bay Basin Water Quality Control Plan, for the purpose of reducing water pollution associated with urban storm water runoff. This program was also designed to fulfill the requirements of Section 304(1) of the Federal Clean Water Act, which mandated that the EPA develop National Pollution Discharge Elimination System (NPDES) Permit application requirements for various storm water discharges, including those from municipal storm drain systems and construction sites.

The San Francisco Bay Regional Water Quality Control Board reissued a Municipal Storm Water National Pollutant Discharge Elimination System (NPDES) Permit to the municipalities in Santa Clara Valley, the County of Santa Clara, and the Santa Clara Valley Water District (SCVWD) as co-permittees in 2001. The Urban Runoff Prevention Program assists the co-permittees in implementing the provisions of this permit.

The NPDES storm water permits that would apply to the project are the general construction activities permit and the municipal permit. Under the provisions of the Municipal Storm Water NPDES Permit, the City is required to take steps within their area of authority to reduce or eliminate pollutants in storm water to the maximum extent practicable.

Consistency: The proposed project will conform to the requirements of the NPDES permitting program. Potential impacts to the water quality of runoff primarily could occur during construction. The proposed project includes identified mitigation measures proposed to reduce water quality impacts in runoff, both for construction and in the long-term, which are consistent with the standards of the Urban Runoff Pollution Prevention Program.

Santa Clara County Congestion Management Program

The Santa Clara Valley Transportation Authority (VTA) oversees the Santa Clara County Congestion Management Program (CMP), last updated in December 2001. The relevant State legislation requires that all urbanized counties in California prepare a CMP in order to obtain each county's share of the increased gas tax revenues. The CMP legislation requires that each CMP contain five mandatory elements: 1) a system definition and traffic level of service (LOS) standard element; 2) a transit service and standards element; 3) a transportation demand management and trip reduction element; 4) a land use impact analysis element; and 5) a capital improvement element. Santa Clara County's CMP includes the five mandated elements and three additional elements, including a county-wide transportation model and database element, an annual monitoring and conformance element, and a deficiency plan element.

The Santa Clara County CMP includes subregional roadways within Santa Clara and adjacent cities that are identified as CMP road facilities. CMP intersections in the immediate vicinity include intersections on Lawrence Expressway north and south of Homestead Road. The proposed project would not generate additional vehicular traffic that could impact the LOS of these CMP intersections.

Consistency: The proposed project would be consistent with the Santa Clara County CMP.

2. Local Plans and Policies

City of Santa Clara General Plan

The City of Santa Clara General Plan is the City's principal policy document for guiding future conservation and overall development in the City of Santa Clara through the year 2010. The General Plan was revised and adopted on July 23, 2002.

The project site is designated as *Public Facilities, Institutional* in the City of Santa Clara General Plan. The *Public Facilities* designation allows for a wide range of institutional, academic, governmental, and community service uses that are publicly or privately owned and operated. The proposed construction and operation of an emergency helipad within the larger medical center site is consistent with the land use designation for the site.

The project's conformance with major policies contained within the General Plan is summarized below.

Land Use Element

The Design Policies in the General Plan call for ensuring a distinctive character and a high quality standard of development for structures and outdoor uses in all zoning districts in the City. The 17-foot high platform, adjacent to a four-story building, will be consistent with the mass, scale, and design of structures on the Kaiser Permanente Santa Clara Medical Center site and will be designed in accordance with standard engineering practices, considering the physical constraints and conditions on the site.

Environmental Quality Element

The Noise Policies in the General Plan call for protecting, to the extent possible, developed areas from unacceptable noise levels, complying with City, State and Federal guidelines for the compatibility of land uses with their noise environments, and reducing noise from fixed sources, construction, and special events. The proposed project would result in infrequent, temporary increases in noise levels from helicopter overflights. As described in *Section III.B. Noise*, noise levels could result in sleep disturbance or annoyance of residents in Santa Clara; however, the occasional helicopter overflights would not exceed City, State or Federal guidelines for land use compatibility.

Consistency: The project site is designated in the Santa Clara General Plan for *Public Facilities, Institutional* uses. The proposed operation of a helipad for emergency medical evacuations is consistent with the General Plan land use designation on the site and policies in the Land Use and Environmental Quality elements of the General Plan.

City of Santa Clara Zoning and Use Permit Process

The project proposes to construct an emergency helipad under a Use Permit. Within most zoning districts, certain uses are designated “conditional” and are allowed by Use Permit approval only (Article 55 of the City of Santa Clara Zoning Ordinance). These are typically uses which have the potential of adverse impact and, therefore, require more review than other uses which are allowed without Use Permit approval.

The proposed helipad would support the hospital use allowed under the approved Planned Development (PD) zoning for the site. The Use Permit is required for specific project design elements, including location within the larger Kaiser site, setbacks, and lighting, and for allowed operating conditions. Emergency vehicles, including air ambulances, currently travel to and from the existing Kaiser Permanente facility in Santa Clara, and are expected uses associated with General Acute Care hospital facilities. The proposed project is generally consistent with land uses previously allowed under the current PD zoning district.